



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,839	12/19/2006	Jean-Luc Bernard	291090U/SOX PCT	7582
22850	7590	02/22/2011		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ZHU, WEIPING	
			ART UNIT 1734	PAPER NUMBER
			NOTIFICATION DATE 02/22/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

### Office Action Summary

**Application No.**

10/580,839

**Applicant(s)**

BERNARD ET AL.

**Examiner**

WEIPING ZHU

**Art Unit**

1734

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 March 2010 and 11 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6,7 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7,10 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/8/2010 and 3/11/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 11, 2010 has been entered.

### ***Status of Claims***

2. Claims 1, 3, 4, 6, 7, 10 and 17-21 are currently under examination wherein claims 1, 4, 6, 7 and 18-20 have been amended in applicant's amendment filed on March 30, 2010. The declaration under 37 CFR 1.132 filed on March 30, 2010 has been acknowledged.

### ***Comments***

3. The phrase of "containing comprising" in line 5 of claim 5 should be changed to "containing" or "comprising".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 4, 6, 7, 10 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-240392 A in view of Costin (US 3,980,473).

With respect to claims 1, 3, 4, 6, 7, 10, 17-19 and 21, JP ('392 A) discloses a Co base alloy having by wt.% a composition as shown in the table below (abstract).

Elements	Instant Claims	JP ('392 A)	Overlapping Ranges
Cr	23-34	22-37	23-34
Ni	6-12	5-15	6-12
Hf		0.1-5	
Ti	0.5-5		
Ta	0-7	5-12	5-7
C	0.2-1.2	0.22-1.2	0.22-1.2
Fe	Less than 3		
Si	Less than 1	0.01-2	0.01-1
Mn	Less than 0.5	0.01-2	0.01-0.5
Co	Balance	Balance	

The contents of Cr, Ni, Ta, C, Si and Mn as disclosed by JP ('392 A) overlap the contents respectively as claimed in the instant claims 1, 3, 10, 17 and 21. JP ('392 A) does not disclose the contents of Ti as claimed in the instant claims 1, 6, 7 and 19. Costin ('473) discloses a Co based alloy containing by weight 0.25-1.5% of Ti (col. 1, lines 40-50). It would have been obvious to add by weight 0.25-1.5% of Ti to the alloy of JP ('392 A) as disclosed by Costin ('473) in order to improve the corrosion resistance and high temperature strength of the alloy as disclosed by Costin ('473) (col. 1, lines 29-33). The content range of Ti as disclosed by Costin ('473) overlap the ranges as claimed in the instant claims 1, 6, 7 and 19. A prima facie case of obviousness is established. See MPEP 2144.05 I. The claimed Fe content of less than 3% does not require the presence of Fe, because the claimed content also includes the 0%. The (Ti + Ta)/C ratios of JP ('392 A) in view of Costin ('473) would obviously overlap the (Ti +

Ta)/C ratios as claimed in the instant claims 4 and 18 because the contents of Ti, Ta and C as disclosed by JP ('392 A) in view of Costin ('473) overlap the claimed contents of Ti, Ta and C respectively as discussed above. JP ('392 A) further discloses that Cr would dissolve in the matrix (i.e. Co) as a solid solution to enhance the elevated temperature oxidation resistance of the alloy (paragraph [0007], machine translation). The transitional phrase "consisting essentially of" in claim 1 limits the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristic(s) of the claimed invention. See MPEP 2111.03. In the instant case, some additives still can be included as desired in the alloy composition to achieve desired properties. The Hf is added to the composition of JP ('392 A) in view of Costin ('473) to increase the abrasion resistance and elevated temperature oxidation resistance of the alloy (paragraph [0009], machine translation). The applicant has not provided the evidence to show that the addition of Hf in the prior art would materially change the characteristics of the instant composition. Therefore, JP ('392 A) in view of Costin ('473)'s composition meets the limitations of the instantly claimed alloy composition.

With respect to claim 20, JP ('392 A) disclose that the alloy further contains Zr (abstract).

### ***Response to Arguments***

5. The applicant's arguments and the declaration under 37 CFR 1.132 filed on March 30, 2010 have been fully considered but they are moot in light of the new ground of rejections of the amended features above.

***Conclusions***

6. This Office action is made non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emily Le can be reached on 571-272-0903. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Weiping Zhu/  
Examiner, Art Unit 1734

2/7/2011